

Glass Transition in Ultra-Thin Polymer Films

- Scanning nanocalorimeter has been used to observe glass transition in thin polymer films
 - Pronounced glass transition is observed even at thickness as small as 1-3 nm
 - Surprisingly, no pronounced glass transition dependence on film thickness down to 3 nm
 - Evolution of calorimetric data with film thickness can be discussed in terms of broadening of transition dynamics and loss of transition contrast
- Technique, because of good contrast, is shown to be attractive as a glass transition probe for thin polymeric films

